Administrative Cost Statements in the Japanese Local Financial Reforms: Some Problems

日本の地方財政改革における行政コスト計算書 ── その問題点

Tatsuhiko Kato
加 藤 達 彦

Contents

I Introduction

In the Japanese local government accounting there is neither harmonization nor obligation to prepare for the financial statements. But recently the governors or mayors try to disclose voluntarily their balance sheet and their profit and loss statement, or so-called "administrative cost statement". These trends may be interpreted as a good intention to show their strong cost-saving determination, although the statements actually prepared for leave a lot to be desired.

If the disclosure of these statements is voluntary, we find a signaling model more feasible, since there are only implicit contractual relationships between a governor and the citizen. We develop a model focused on the disclosure of administrative cost statement, in which 2 players interact; a candidate for governor and the citizen. What we want to demonstrate is that the disclosure of this statement is a signal for his competence.

The administrative cost statement may show a distorted signal, unless they are established on the accrual basis. However, we find some manipulations in the local governments where accrued items are voluntarily introduced. This problem gives a likelihood of wide discretion on the side of governors. 2 cases are identified, which occurs in the most advanced local governments in Japan in terms of introducing accrual accounting measures. We regard them as "earnings management" of governors, which concept has been recently at issues in the private sector.

The rest of our paper is organized as follows. In section II we apply a signaling game

to the situation in which a candidate for governor is thinking of the disclosure of administrative cost statement after the election. We show that the disclosure, even if only intention, can solve an information asymmetry between a candidate and the citizen.

In section Ⅲ some problems are indicated. We refer to them as earnings management of governors and indicate the possible manipulation of accrual items, particularly allowance for retirement benefits, whose purpose is to offset too much surplus or too much deficit in the administrative cost statement. Because the former implies a possible reduction of grants or subsidies from the central government and the latter inflicts the image of incompetence on governors, which is bound to be avoided. 2 cases are examined. A summary and conclusion are provided in section Ⅳ.

Ⅱ The Signaling Game

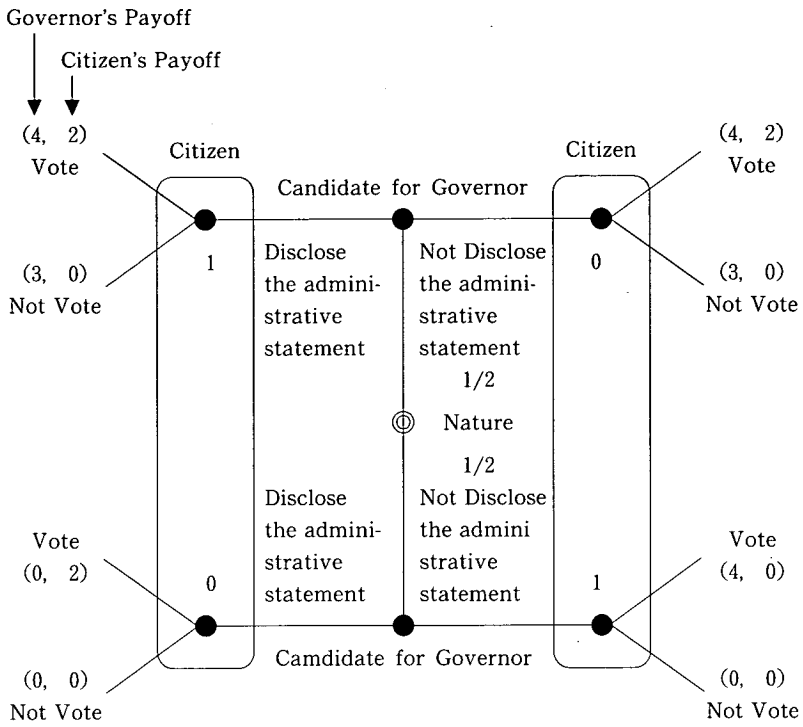
The bulk of literature on signaling games begins with Spence's (1973) model, which preceded a widespread use of extensive-form games to economic problems (Gibbons 1992, p. 190). His pioneer work deals with job market signaling based on the education received. In the accounting field Datar et al. (1991) consider auditing to be a signal in valuing new issued. Christensen and Feltham (2003, pp. 492～494) study the signaling function of audited financial statements in the financial market. Kato (2004・2005) regards auditing as a signal for manager's honesty. We modify a signaling game of Kato (2004・2005) in order to demonstrate the disclosure of administrative cost statement as a signal for the competence of governor.

The governor's election is expected and there are two types of candidates for the governor; competent and incompetent. Citizen's choice is to vote for one of them. There exists an information asymmetry about the type of candidates. The candidates know their type but the citizen doesn't. If the competent candidate is elected, he will save the money and reallocate it for the sake of citizen, for example, so as to reduce the fees and tax rates or create new services; the citizen's payoff is 2. On the other hand if the incompetent candidate is elected, he will make no saving effort; the citizen's payoff is zero.

The disclosure of administrative cost statement can transmit information from a governor to the citizen and solve the information asymmetry. The availability of administrative cost statement for citizens totally depends on the intention of candidate, because only he can voluntarily disclose it after the election. While the competent candidate will save the administrative costs without making any effort, the incompetent candidate should make an effort in order to save the money; the cost that he incurs is 4.

The reservation utility of competent candidate is 3, since he will be employed in a private firm, even if not elected, although he will have a payoff of 4 for the governor's office. Suppose that the establishment of administrative cost statement incurs no cost at all. The disclosure of this statement, however, reveals the saving effort that the governor

Figure 1 Signaling Game of the Disclosure of Administrative Cost Statement



has made. The competent type will always disclose it so as to show his type, but the incompetent one doesn't want to do so, since it reveals his saving effort, which is not costless. The former type has a cost advantage. Thus, we can separate correctly from the competent type to the incompetent one, looking at whether he will disclose the administrative cost statement or not.

The fact that a citizen will not know at which of nodes he may be located when he takes a vote is indicated by enclosing the nodes in an ellipse in Figure 1. The set of nodes enclosed by such an ellipse is called an information set. What the citizen knows is simply that he is deciding at one of these two nodes in the ellipse.

We now examine how well our signaling model can explain the candidate who will disclose the administrative cost statement should be competent type, which could be a unique Nash equilibrium in this game. In other words, let us examine whether next two conditions will be met. First the citizen always votes for when the candidate will disclose the statement, whereas the former doesn't so when the latter wouldn't like to disclose it. Secondly the candidate will disclose it whenever he is competent, while he doesn't so whenever he is incompetent.

Let us suppose that the citizen doesn't vote in the right information set enclosed in an ellipse, while he does vote in the left. On the upper node the candidate will get a payoff of 4 if he discloses the statement, while he will get a payoff of 3 if he doesn't. On the lower

node the candidate will get a payoff of zero, whether he will disclose the statement or not. Not disclosing it is one of the best replies to the citizen. Thus, the second condition is indeed satisfied.

Next we examine whether or not the first condition will be met. That is, the citizen's best reply is to vote for whenever the candidate will disclose the statement and not to vote for whenever he doesn't. Every time the elected governor has disclosed it, he should have been competent. Thereby the probability one could be assigned to the upper node in the left information set enclosed in an ellipse. The citizen also believes to be located on the upper node. If he votes, he can get a payoff of 2, but if he doesn't, he can get nothing and hence his best reply is to vote.

In the right information set, however, we could assign the probability one to the lower node, since the elected governor should have been incompetent. The citizen also believes to be located on the lower node. If he votes, his payoff is zero and hence his best reply is not to vote. Thus, the first condition is also satisfied. We call it a separating equilibrium. It means that the uninformed player can get informed by observing what the informed one has chosen.

Ⅲ Earnings Management of Governors

1. Local government accounting in Japan

First we must take a look at what is going on in the accounting of Japanese local governments. There is neither harmonization nor obligation to prepare for the balance sheet and the administrative cost statement. But we can identify 3 types of model that compete each other. That is;

① model of Ministry of public management
② model of a think tank "Future plan for Japan"
③ self-developed models

As for ①, the model of balance sheet was released in 2000 and that of administrative cost statement in 2001. The model ② was developed by the task force under the initiative of several prefectures and cities. The typical example of ③ is Musashino-city. The model ① is dominating, while that of ② is now completely losing ground. Although the latter is considered to be more advanced, since it is established on the activity basis and makes it very clear how much each service produced depends on grants or subsidies. The model ③ is more or less influenced by that of ② and it is much more like the profit and loss statement of the private sector.

We show in the table 1 the administrative cost statement of Shizuoka prefecture for fiscal year 2003 as example of ①. while in the table 2 that of Musashino-city for fiscal year 2003 as example of model ②, which made much more progress than that of ① in introducing the accrual basis.

Table 1-1 Administrative Cost Statement of Shizuoka Prefecture FY 2003*

Administrative Cost Items		Total	Ratio (%)	Assembly	Administration	Social Help	Sanitation	Labor
Costs Incured in Personnel	Salaries	3638	37.9	20	146	50	69	11
	Retirement	245	2.6	2	24	5	7	1
	Total	3883	40.5	22	170	55	76	12
Costs for Consumption	Acquisition	427	4.5	2	91	8	23	6
	Maintenance	120	1.3	0	2	0.3	0.2	0.2
	Depreciation	1683	17.6	0.06	76	8	8	5
	Total	2231	23.3	2	170	16	31	11
Transfer Costs	Allowances	182	1.9			126	52	
	Subsidies	1923	20.0	0.1	239	560	176	24
	Brought out	26	0.3		0	0	0	0
	Constructions	701	7.3	0	51	101	3	0
	Total	2831	29.5	0.1	290	787	262	24
Others	Restoration	91	0.9					
	Debt Service	542	5.7					
	Discharge	0.4	0.0	0	0	0	0	0
	Unpaid Taxe	13	0.1					
	Total	6460	6.7	0	0	0	0	0
Administrative Costs		9590		24	629	858	369	48
Ratio (%)				0.2	6.6	9.0	3.9	0.5
Revenue Items								
1 Fees b		622		0.03	189	28	12	1
b/a		6.5		0.2	30.1	3.3	3.1	2.1
2 Grants c		1398			52	170	59	5
c/a		14.6			8.3	19.8	15.9	11.0
3 Ordinary Revenues**		6580						
D/a		68.6						
4 Grants allocated*** e		525						
Revenue (b+c+d+e) f		9124						
Net Surplus (Deficit) f-a		△466						

* In 100 million yen

** Local Taxes, Local Transferred Tax, and Local Allocation Tax etc.

*** Grants allocated for the life time of assets

Table 1-2 Administrative Cost Statement of Shizuoka Prefecture FY 2003* (continued)

Agri-culture	Com-merce	Public Works	Police	Edu-cation	Resto-ration	Debt Service	Alloca-tion Tax	Unpayed Tax
119	28	78	601	2516				
13	3	8	34	147				
132	32	86	635	2663				
35	12	32	87	120		11		
1	0.4	102	3	10				
428	20	980	71	89				
464	32	1114	160	219		11		
				3				
38	56	8	11	281	0.03		530	
0	0	26	0	0				
140	11	361	0	3				
177	68	394	11	287	0.03		530	
					91			
						542		
0	0.09	0	0	0.3	0			
								13
0	0.09	0	0	0.3	91	542		13
773	131	1594	807	3170	91	553	530	13
8.1	1.4	16.6	8.4	33.1	1.0	5.8	5.5	0.1

41	5	107	52	121	0.09	65	0	
5.3	3.8	6.7	6.4	3.8	0.1	11.7	0.0	
108	10	136	7	793	59	0	0	
13.9	7.4	8.5	0.8	25.0	64.7	0.0	0.0	

* In 100 million yen

Table 2 Administrative Cost Statement of Musashino-city for FY 2003

Item			Sum (1000 yen)	Ratio (%)
Revenue	1 Revenues in Cash	Municipality Taxes	37,505,009	73.8
		National Grants	3,476,488	6.9
		Grants from Tokyo Prefecture	2,982,451	5.9
		Fees	1,528,854	3.0
		Contributions	159,817	0.3
		Revenue from Properties	558,410	1.1
		Other Revenue	319,989	0.8
		Others (Allocation Taxes etc.)	4,363,782	7.8
	Total		50,574,336	99.6
	2 Other Revenues	Brought out from Reserves	267,140	0.5
		Decrease of Unpaid Taxes	△45,982	−0.1
		Increase of Unpaid Taxes	△229	0.0
	Total		221,657	0.4
Total Revenues			55,795,993	100.0
Expense	1 Expenses in Cash	Personnel Expenses	12,360,057	24.3
		Acquisition of Properties	10,843,714	21.3
		Maintenance and Repair	568,416	1.1
		Allowances	6,239,165	12.3
		Subsidies	5,727,006	11.3
		Debt Service Payment	787,774	1.6
		Transfer to Other Accounts	4,533,369	8.9
		Expenses for Construction	1,677,284	3.3
	Total		42,736,785	84.1
	2 Other Expenses	Allowance for Unpaid Taxes	△9,915	−0.0
		Depreciation	2,662,976	5.2
		①Roads and Bridges	978,105	
		②Construction	1,501,111	
		③Equipment	65,223	
		④Vehicles	50,425	
		⑤Payment by Beneficiary	68,112	
		Loss on Retirement of Fixed Assets	148,812	0.3
		Allowance for Retirement Benefits	△1,804,413	−3.6
	Total		997,460	2.0
Total Expenses			43,734,245	86.1
Net Surplus			7,061,748	13.9

First we can make a very clear distinction between the form of the model ① and that of ②. Frankly speaking, that of model ① is very difficult to understand from the accountant's point of view. For example, we must be cautious about the indication of "depreciation for shared assets on the part of central government" in the revenue item, when we look at the administrative cost statement of model ①. Because the net depreciation on the part of local government is only determined by elimination of that revenue from depreciation indicated in the expense items.

Another distinction is no accrual items other than the allowance for retirement benefits. In the model ② another allowance is made for loss due to unpaid taxes and fees. Further distinction is how the retirement benefits are calculated. What Musashino-city is based on is quite similar to the projected benefits obligation (PBO) applied to the private sector in Japan.

Meanwhile, we can't ignore the case in which some local governments, particularly most advanced ones in terms of introducing the accrual accounting, tend to manipulate their administrative costs in order to adjust themselves to a proper level. Some local governments take advantage of the allowance for retirement benefits for this purpose. It might be compared to What Healy and Wahlen (1999) calls earnings management of the private companies. Their definition is:

> Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (Healey and Wahlen 1999, p. 368).

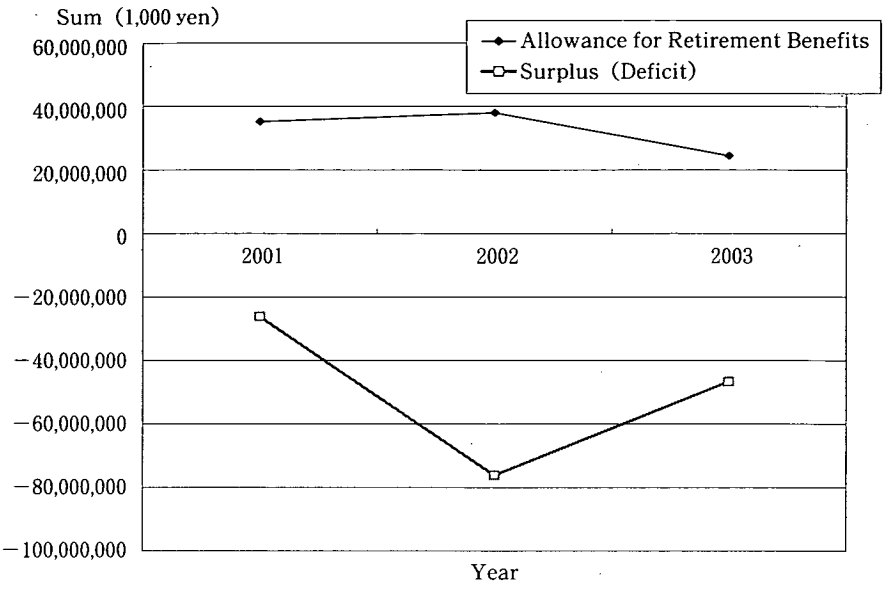
We show some examples which might be designed to mislead or influence some citizens or the central government.

2. Case studies

The Ministry of public management indicates the method of depreciation and the service life of assets. Thereby, the sum of depreciation is almost stable and there is no discretion on the side of governors. However, as far as the measurement of allowance for retirement benefits is concerned, there is no clear guideline. What the Ministry suggests is the total sum of retirement benefits supposed to pay if all employees quit the jobs all at once for the personal reason at the end of exercise. It goes without saying that there is no discounting. This method tends to underestimate the allowance.

Figure 2 shows the deficit of the administrative statement and allowance for retirement benefits over 3 years (2001～2003) in Shizuoka prefecture. The curious thing is that the deficit and the allowance always move an opposite direction in each period. The

Figure 2 Surplus (Deficit) and Allowance for Retirement Benefits of Sizuoka Prefecture



calculation of the allowance might be manipulated, because too much deficit could cause an embarrassment on the part of governor and the citizen. No detailed explanations are given and all we can know is to observe the guideline of the Ministry of public management.

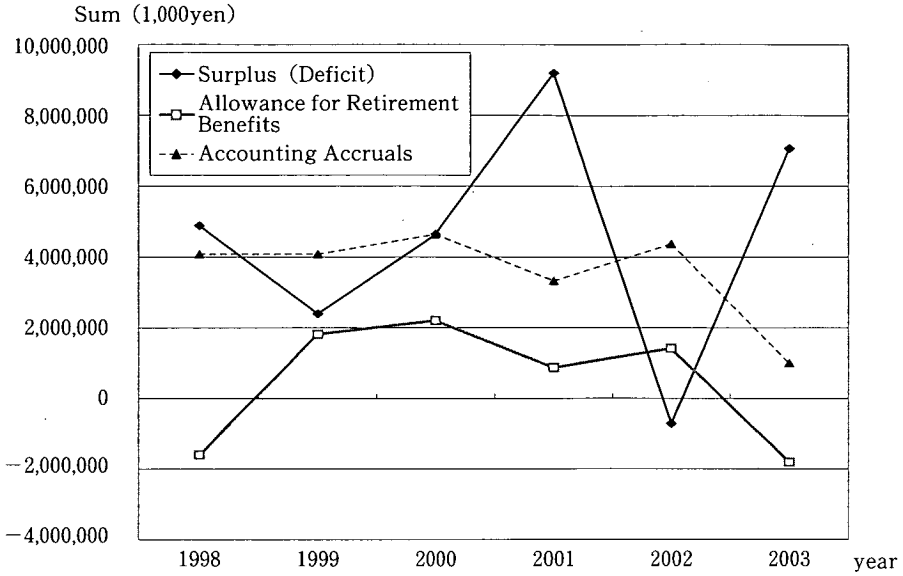
As for the model of the Ministry, no data is available prior to 2001, since the guideline was released in that year. But some local governments have been voluntarily disclosing the administrative cost statement for much longer. Figure 3 shows the surplus or deficit of the administrative cost statement and allowance for retirement benefits over 6 years (1998~2003) in Musashino-city. The tendency is much clearer. The surplus (or deficit) and allowance move an opposite direction in each period except for one (1999~2000), as if too much surplus or deficit was offset by the increase or decrease of allowance for the next period. The negative coefficiency (−0.404) partially explains it.

According to the explanations given, for the first 2 periods (1998~1999) the allowance for retirement benefits was equal to averaged retirement benefits at the end of career multiplied by the total employees. There has been also a discounting, which rate was founded on that of long term national bond, namely 3% for that époque.

In the fiscal year 2000 2% annual increase of salary has been taken into account. Together with the critic of the accounting methods just released by the Ministry in 2001, Musashino-city justified his estimation of retirement benefits by avoiding the underestimation which likely to happen to the model of the Ministry[1]. In the fiscal year 2002 the

1 According to Musashino-city, if the allowance for retirement benefits is calculated based on the accounting methods released by the Ministry, it will amount to only 60% of what Musashino-city has actually allowed for.

Figure 3 Surplus (Deficit) and Administrative Costs of Musashino-city



discounting rate has been lowered to 2%.

Unlike the definition of accounting accruals in the private sector: net income minus operating cash flow, we consider the total sum of following items to be accounting accruals in the Japanese local government accounting, because only 3 accrual items are identified even in a advanced administrative statement like that of Musashino-city; allowance for retirement benefits, depreciation, and allowance for unpaid taxes and fees. As Figure 3 shows, its accounting accruals follow almost the same tendency as the allowance for retirement benefits, since the total sum of last 2 items doesn't differ so much from one period to another.

Even in these limited cases some manipulations are suggested. What governors concern is either too much surplus or deficit. In the former he is afraid of losing grants or subsidies from the central government, as we suggest in terms of the soft budget constraint (Kato 2003). Too much deficit gives him an appearance of incompetent governor. If there is a wide range of discretion on the side of accounting methods, he is willing to take advantage of it.

Ⅳ Concluding Remarks

The summary of the present paper is as follows.

(1) If the disclosure is voluntary, a signaling model seems to be more convenient, since there is no explicit contractual relationships between a governor and the citizen.

(2) The disclosure of administrative cost statement is regarded as a signal for the competence of governor.

(3) So damaging to this function is that the manipulation of administrative cost statement can be perpetrated. 2 examples are identified.

(4) In both cases the manipulation is conducted in the accounting of retirement benefits.

(5) Smoothing surplus seems to be practiced not to give a too good or too bad impression to the central government or citizens.

However, it is too early to make a conclusion on the manipulation of administrative cost statements, since samples and data available are very limited. Furthermore, this problem may be regarded as what happens usually to the transfer period. We need a clear and integrated guideline imposed on accounting, which measure prevents governors from conducting earnings management. But even if that reform is accomplished, it can be never perfect, as is the case of window-dressing that never ceases to occur in the private sector.

References

Binmore, K., *Fun and Games Text on Game theory,* D.C. Heath, (1992).

Christensen, P.O. and G.A. Feltham, *Economics of Accounting Vol. 1 Information in Markets,* Kluwer Academic Publishers, (2003).

Datar, S.M., G.A. Feltham, and J.S. Hughes, The Role of Audits and Audit Quality in Valuing New Issues, *Journal of Accounting and Economics,* Vol. 14, No. 1, (1991), pp. 3-49.

Fudenberg, D. and J. Tirole, *Game Theory,* MIT Press, (1991).

Gibbons, R., *Game Theory for Applied Economists,* Princeton University Press, (1992).

Healy, P.M. and J.M. Wahlen, A Review of the Earnings Management Literature and Its Implications for Standard Setting, *Accounting Horizons,* Vol.13, No.4, (1999), pp. 365-383.

Kato, T., Accounting for Local Governments and the Soft Budget Constraint, *Bulletin of Faculty of Commerce Meiji University,* Vol.86, No.1, (2003), pp. 19-35.

Kato, T., Audit Credibility: A Theory and an Experimental Investigation, *Bulletin of Faculty of Commerce Meiji University,* Vol. 86, No. 4, (2004), pp. 21-37.

Kato, T., Audit Credibility and the Audit Purchasings Costs: A Theory and an Experimental Investigation, *Bulletin of Institute of Social Science Meiji University,* Vol. 27, No. 2, (2005), pp. 1-18.

Kato, T., Administrative Cost Statements in the Japanese Local Financial Reforms: Some Problems, *Collective Papers of the 10 th Biennial Congress of CIGAR* (Comparative International Government Accounting Research) in Poitiers, France, (2005).

Spence, M., Job Market Signaling, *Quarterly Journal of Economics,* Vol. 87, No. 2, (1973), 355-374.